

ABSTRACT

The current invention provides methods to silence insect genes by using unpackaged dsRNA or siRNA, in one embodiment such dsRNA or siRNA is present in plant vascular tissue, preferably phloem, more particularly phloem sap, and the insect is a plant sap-sucking insect. Also provided are DNA sequences which when transcribed yield a double-stranded RNA molecule capable of reducing the expression of an essential gene of a plant sap-sucking insect, methods of using such DNA sequences and plants or plant cells transformed with such DNA sequences. Also provided is the use of cationic oligopeptides that facilitate the entry of dsRNA or siRNA molecules in insect cells, such as plant sap-sucking insect cells.